



U.S. Department  
of Transportation  
Federal Aviation  
Administration

# Advisory Circular

**Subject: MANAGEMENT OF PASSENGERS  
WHO MAY BE SENSITIVE TO  
ALLERGENS**

**Date: 12/31/02  
Initiated by: AFS-200**

**AC No: 121-36  
Change:**

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**1. What is the purpose of this Advisory Circular (AC)?**

This AC provides guidance regarding air carrier passenger handling procedures for allergen-sensitive people, including the importance of crewmember training in recognizing and responding to medical events that result from allergen exposure.

**2. Does this AC relate to any existing ACs?**

It relates to Federal Aviation Administration (FAA) AC 120-44A, Air Carrier First Aid Programs, AC 121-33, Emergency Medical Equipment, and AC 121-34, Emergency Medical Equipment Training (<http://www.faa.gov/avr/afs/cabinsafety/acidx.cfm>), which may be good reference sources.

**3. What FM regulations does this AC cover?**

Title 14 of the Code of Federal Regulations (14 CFR) part 121, subpart N and subpart X.

**4. Who should read this AC?**

Parts 121 and 135 air carrier certificate holders and part 125 certificate holders and others, directors of operations, directors of safety, directors of training, crewmembers, aviation medical equipment suppliers, aviation medical training providers, airline passengers who may be sensitive to allergens, and FM aviation safety inspectors (cabin safety and operations).

**5. What are allergic reactions?**

Allergic reactions occur when a person's immune system inappropriately reacts to a substance that is harmless to most other people.

**6. What types of substances may cause an allergic reaction?**

Many substances may cause a person to have an allergic reaction. Some of the most common triggers that may cause an airline passenger to have an allergic reaction are:

- Certain types of food (such as peanuts, shellfish, milk, and eggs).
- Medication
- Insect bites
- Dog and cat allergens

**7. What are the symptoms of an allergic reaction?**

There are varying degrees of allergic reactions. Some symptoms may be very mild, such as a rash, hives, a runny nose, or sneezing. Some allergic reactions may be very severe. Exposure to allergens may trigger asthma attacks in some people. In other people, exposure to allergens may cause an extreme allergic reaction called anaphylaxis.

**8. What is an anaphylactic reaction?**

An anaphylactic reaction is a sudden, severe allergic reaction that may involve various systems of the body (such as the skin, respiratory tract, gastrointestinal tract, and cardiovascular system). It can be life threatening.

**9. What are the symptoms of an anaphylactic reaction?**

The most important symptom of anaphylaxis is difficulty in breathing frequently first seen as hoarseness and requires immediate, aggressive treatment. An anaphylactic reaction may begin with a tingling sensation, itching, or a metallic taste in the mouth. Other symptoms may include a rash, hives, a sensation of warmth, asthma symptoms, swelling of the mouth and throat area, difficulty breathing, vomiting, diarrhea, cramping, a severe drop in blood pressure, and loss of consciousness. Symptoms may occur within minutes to several hours after contact with the allergy-causing substance.

**10. How common is it for an airline passenger to experience a severe allergic reaction while in flight?**

It is an extremely rare occurrence. Researchers from the FAA Civil Aerospace Medical Institute issued a report based on a study that considered 1996- 1997 data on passenger and crew medical events. This report, published in April 2000, titled "The Evaluation of In-flight Medical Care Aboard Selected U.S. Air Carriers: 1996-1 997," covered about 20% of U.S. airline passengers. The study showed that 2.4% of the in-flight medical events were allergic events and there were no deaths associated with these events ([http://www.cami.jccbi.gov/aam-400A/Abstracts/Tech\\_Rep.htm](http://www.cami.jccbi.gov/aam-400A/Abstracts/Tech_Rep.htm)).

**11. What types of allergen sensitivities generate the greatest concerns for airline passengers?**

The two types of allergies that appear to generate the greatest passenger concerns on commercial aircraft are sensitivities to peanuts and animal allergens. People who are severely allergic to these substances (or parents of children who are severely allergic to these substances) are typically very responsible at monitoring their environment to avoid exposure and taking appropriate action if symptoms from exposure occur. For those people, the unique environment of an airplane passenger cabin can present certain challenges.

**12. What can I do to prepare for my flight if I am a passenger who is severely allergic to peanuts?**

If you or your child has an allergy to peanuts, contact your allergist/physician before your trip to discuss travel-related risks and ask if you should carry medications with you. Treatment of peanut allergy typically consists of avoiding accidental ingestion of peanuts and recognizing and managing early symptoms of an allergic reaction. In the case of life-threatening allergies to peanuts, your doctor may advise you to carry an epinephrine auto-injector and oral liquid diphenhydramine to immediately and aggressively treat a reaction. If you choose to carry an epinephrine auto-injector, make sure that you have a professionally printed pharmacy label with the device to satisfy the Transportation Security Administration (TSA) airport security requirements. If a reaction should occur during the flight, follow your doctor's treatment instructions. If necessary, ask a flight attendant for assistance.

There are some airlines that do not serve peanut snacks and there are some airlines who are willing to accommodate your request to serve a non-peanut snack on your flight. You can also carry peanut-free food with you. You should call an airline's reservation number to get specific information for that airline. Even if no peanuts are served on your flight, however, no airline can guarantee a peanut-free flight. There may be peanut ingredients in the meal or other passengers may carry peanuts onto the airplane with them. If you or your child is contact-sensitive to peanuts, consider wiping down the surfaces immediately surrounding your seat (such as tray table and armrests) with a disposable wipe and inspecting the floor and seat area for peanut residue from previous flights.

The Aerospace Medical Education Division of the FAA Civil Aerospace Medical Institute maintains a website with information regarding passenger health and safety, as well as helpful links to other websites that contain information on this subject (<http://www.cami.jccbi.gov/aam-400/PassengerandS.htm>).

**13. What passenger handling procedures can we, as an air carrier, put in place to respond to passenger concerns about peanut allergies?**

As discussed in question number 12, it would be impossible for you to create a peanut free flight. However, you can take several steps:

- Educate your personnel regarding the basis for passenger concern in this area. Acute symptoms predominate in allergic reactions to food. Allergies to peanuts account for the majority of fatal and near-fatal anaphylactic reactions.
- To accommodate peanut-free food requests, review systems that you may already have in place to address special passenger dietary needs.
- Train your crewmembers to respond quickly and properly to a passenger who may be experiencing an allergic reaction (if you choose to have crewmembers medically assist passengers),

**14. What can I do to prepare for my flight if I am a passenger who is severely allergic to animal dander?**

If you suffer from allergies to animals, you should check with your physician before your trip to discuss travel-related risks and ask if you should carry medications with you (such as an inhaler or oral medications). In the case of life-threatening allergic reactions, your doctor may advise you to carry an epinephrine auto-injector in order to immediately and aggressively treat an anaphylactic reaction. If you choose to carry an epinephrine auto-injector, make sure that you have a professionally printed pharmacy label with the device to satisfy TSA airport security requirements. If a reaction should occur during the flight, follow your doctor's treatment instructions. If necessary, ask a flight attendant for assistance.

You can reduce the chance that there will be an animal in the cabin on your flight. You can fly on an airline that does not allow pets in the cabin. You can ask the reservations agent for your airline if another passenger on the same flight has made reservations to travel with a pet. For more information on pets in the passenger cabin go to:

<http://www.faa.gov/avr/afs/cabinsafety/pets/pets.htm>

You will, however, still be exposed to animal dander on every flight even without any animals in the passenger cabin. This is because most animal allergens are carried into the cabin on the clothes of other passengers. In addition, the Department of Transportation (DOT) has rules (<http://airconsumer.ost.dot.gov/airconsumer/rules/382SHORT.htm>) that require airlines to allow passengers to fly with their service animals in the cabin on all U.S. airlines. Service animals are not pets. They are working animals that assist persons with disabilities. There is no limit to the number of service animals that can be on any flight.

**15. What passenger handling procedures can we, as an air carrier, put in place to respond to passenger concerns about animal allergies?**

As discussed in question number 14, it would be impossible for you to create a flight that is free from animal dander. However, most modern aircraft have design criteria that will help alleviate the problem of aerosolized animal dander. Zonal airflow in the passenger cabin and the use of high efficiency particulate air filters (HEPA) can mitigate and localize the effects of animal dander in the passenger cabin. In addition, you can:

- Educate your personnel regarding the basis for passenger concern in this area.
- Develop flight attendant procedures to respond to passengers who are concerned about sitting near an animal. These might include reseating the passenger with a pet to another seat on the aircraft that is removed from the passenger with allergies or, if necessary, provide another flight as an alternative to the passenger with the cabin pet. In the case of a service animal (which is not a pet), you can provide a reasonable accommodation to the passenger with allergies. For example, you can offer to move them to another seat on the aircraft, or, if necessary, provide another flight as an alternative to the passenger with allergies.

- Train your crewmembers to respond quickly and properly to a passenger who may be experiencing an allergic reaction (if you choose to have crewmembers medically assist passengers).

**16. How can air carrier personnel recognize when a passenger is having an allergic reaction?**

Symptoms of allergic reactions can include itching or burning sensation of the skin, difficulty in breathing, dizziness, nausea, and shortness of breath. A severe allergic reaction (anaphylaxis), frequently preceded by hoarseness, can produce shock (a severe drop in blood pressure) and life-threatening respiratory distress. As we said before, it may include hives, itching, a sensation of warmth, asthma symptoms, swelling of the mouth and throat area, difficulty breathing, vomiting, diarrhea, cramping, a drop in blood pressure, and loss of consciousness. Many times the passenger is aware of the condition, but others may recognize the signs and symptoms of an allergic reaction.

**17. How should flight attendants respond to a passenger who is having an allergic reaction?**

As necessary, the flight attendant should, depending on air carrier policy and procedures:

- Notify the captain
- Request medical assistance and provide support to the medical volunteer, if one is available
- Initiate communication with ground-based medical assistance, if applicable
- Assist the affected passenger in retrieving their own medication
- Allow the passenger to administer their own medication
- Administer medical-use oxygen
- Monitor and maintain airway, breathing, and circulation (ABCs)
- Communicate and coordinate with the flight deck

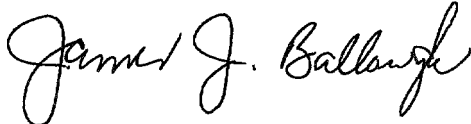
**18. What type of medical equipment is onboard to help respond to a passenger who is having an allergic reaction?**

Medical-use oxygen is available on board to assist a passenger who is experiencing an allergic reaction. In addition, the emergency medical kit (EMK) on board the aircraft contains medication that may be used by a medical professional who responds to a call for medical assistance and/or on the advice of ground-based medical personnel (as per company policy and procedures). Flight attendants are required to be familiar with the contents of the EMK and be prepared to show a list of the kit contents to a qualified medical professional who responds to help with any in-flight medical event (see AC 121-33, Emergency Medical Equipment, at: <http://www.faa.gov/avr/afs/cabinsafety/acidx.cfm>).

**19. Why is the FM issuing this AC?**

The FM is issuing this AC in response to one of ten recommendations the National Research Council (NRC) issued in its December 2001 report entitled “The Airliner Cabin Environment

and the Health of Passengers and Crew.” The NRC conducted a study and issued this report in response to the Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century (PL106-181). In response to recommendation 5, the FAA indicates that it will issue an AC to address issues associated with airborne allergens.

A handwritten signature in black ink, reading "James J. Ballough". The signature is written in a cursive style with a large, stylized "J" and "B".

James J. Ballough  
Director, Flight Standards Service